

WHAT IS CLAIMED IS:

1. A system comprising:

a memory writing device including

5 a first storage medium for storing a write control  
program therein;

a second storage medium for storing write data  
therein; and

write control means, connected to the first and  
second storage media, for

reading write parameter data from one of the  
first and second storage media and sending the write parameter  
data to an external device,

15 reading the write control program from the  
first storage medium and sending the write control program to the  
external device, and

reading the write control data from the  
second storage medium and sending the write control data to the  
external device.

20 2. The system of claim 1, the external device  
comprising:

a memory section; and

external device control means for

receiving the write control parameters, write  
control program and write control data from the memory writing  
device, and

storing at least one of the write parameter data,

write control program and write control data in the memory section.

3. The system of claim 2, wherein:

5 the write parameter data stored in the first memory device includes address information indicative of a storage destination of the write control program in the memory section; and

10 the external device control means is for storing the write control program in a location in the memory section corresponding to the address information.

4. The system of claim 2, wherein:

15 the write parameter data stored in the first memory device includes address information indicative of a storage destination of the write control data in the memory section; and

20 the external device control means is for storing the write control data in a location in the memory section corresponding to the address information.

5. The system of claim 2, wherein:

the write parameter data stored in the first memory device includes communication protocol information governing sending of the write parameter data, write control program and write control data from the memory writing device and receiving of the same by the external device;

the write control means is for sending the write parameter data, write control program and write control data according to the communication protocol information; and

the external device control means is for receiving the write parameter data, write control program and write control data according to the communication protocol information.

6. The system of claim 2, wherein:

the memory section includes a nonvolatile memory; and

the external device control means is for storing the write control data in the nonvolatile memory.

7. The system of claim 1, wherein the write parameter data is stored in the first memory device.

8. The system of claim 1, wherein the write parameter data is stored in the second memory device.

9. The system of claim 1, wherein the memory write control means is for sending the write parameter data, write control program and write control data to the external device at a predetermined timing.

10. A system comprising:

a control unit including

a volatile memory;

a nonvolatile memory;

discriminating information storage means for  
storing discriminating information;

rewrite control program receiving means for  
receiving a rewrite control program sent from a memory rewriting  
5 device and for storing the rewrite control program in the  
volatile memory;

determining means for receiving discriminating  
information sent from the memory rewriting device and for  
determining, responsive to a rewrite command from the memory  
10 rewriting device, whether the discriminating information sent  
from the memory rewriting device coincides with discriminating  
information stored in the discriminating information storage  
means; and

transferring means for, responsive only to a  
determination by the determining means that the discriminating  
information sent from the memory rewriting device coincides with  
15 the stored discriminating information, ~~writing~~ the rewrite  
control program stored in the volatile memory in the nonvolatile  
memory.

20 11. The system of claim 10, wherein the memory  
rewriting device includes:

a memory storing data to be sent to the control unit;  
and

sending means, connected to the memory, for sending the  
data in stored in the memory to the control unit as the  
discriminating information.

12. The system of claim 10, wherein the determining means is further for sending the discriminating information stored in the discriminating information storage means to the memory rewriting device;

receiving an acknowledgement signal from the memory rewriting device indicative of reception of the discriminating information by the memory rewriting device; and

determines whether the discriminating information stored in the discriminating information storage means coincides with the discriminating information sent from the memory rewriting device based on the acknowledgement signal.

13. The system of claim 12, wherein the memory rewriting device includes:

a memory storing data to be sent to the control unit; and

discriminating means for

sending the data in stored in the memory to the control unit as the discriminating information,

receiving the discriminating information sent by the control unit,

determining whether the discriminating information received from the control device coincides with the data stored in the memory,

sending the acknowledgement signal when the

discriminating information received from the control device coincides with the data stored in the memory, and sending the rewrite control program.

5 14. The system of claim 10, wherein:

the determining means is for receiving the discriminating information before receiving the rewrite control program and is for determining whether the discriminating information received from the memory rewriting means coincides with the discriminating information stored in the discriminating information storage means.

15. A system comprising:

a control unit including

a volatile memory;

a nonvolatile memory storing a control program and control data therein;

rewrite control program receiving means for receiving a rewrite control program sent from a memory rewriting device, the rewrite control program including a communication speed change section, including a communication speed change instruction, and a rewrite instruction section, and for storing the rewrite control program in a section of memory other than a section targeted for rewriting; and

communication speed change means for, responsive to the communication speed change instruction received by the rewrite control program receiving means, changing a data

communication speed, between the control unit and the memory rewriting device, which is used to send the rewrite instruction section from the memory rewriting device to the control unit.

5 16. The system of claim 15, wherein:

the communication speed change section further includes a send speed instruction;

the communication speed change means is for, prior to changing the data communication speed, receiving the send speed instruction and sending a signal indicative of a current communication speed to the memory rewriting device responsive to the send speed instruction.

17. A memory writing control unit comprising:

15 data acquiring means for receiving a predetermined amount of data from an external device and for storing the received data in a buffer;

a nonvolatile memory;

20 writing means, connected to the data acquiring means and the nonvolatile memory, for writing the data stored in the buffer to the nonvolatile memory;

determining means for determining whether the entire contents of the buffer have been written to the nonvolatile memory;

request signal sending means for, when the determining means determines that the entire contents of the buffer have been written to the nonvolatile memory, sending a

request signal to the external device to request a predetermined amount of data to be sent to the control unit.

18. The system of claim 17, wherein:

5 the predetermined amount of data is a multiple of a number of bits of data which can be written to the nonvolatile memory in a write operation; and

10 the writing means is for writing the data stored in the buffer to the nonvolatile memory by sequentially extracting the number of bits of data from the data stored in the buffer and writing those bits of data to the nonvolatile memory.

19. The system of claim 17, wherein:

15 the control unit includes a processor which implements the data acquiring means, determining means and writing means according to a rewrite control program stored in a memory other than a portion of memory which is targeted for rewriting.

20 20. The system of claim 19, wherein:

the control unit stores the rewrite control program in memory according to a rewrite control section which includes a communication speed change section, including a communication speed change instruction, and a rewrite instruction section; and

the control unit further comprises communication speed change means for, responsive to the communication speed



change instruction, changing a data communication speed, between the control unit and the external device, which is used to receive the rewrite instruction section.

5 21. The system of claim 20, wherein:

the communication speed change section further includes a send speed instruction;

the communication speed change means is for, prior to changing the data communication speed, receiving the send speed instruction and sending a signal indicative of a current communication speed to the external device responsive to the send speed instruction.

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ADD A1 >

ADD F1